



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,438	11/14/2000	Philip G. Foell	XER2 0397D/A0778	9676

7590

12/07/2005

Albert P Sharpe III
FAY SHARPE FAGAN MINNICH & McKee LLP
1100 Superior Avenue 7th Floor
Cleveland, OH 44114

EXAMINER

STERRETT, JONATHAN G

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,438

Applicant(s)

FOELL ET AL.

Examiner

Jonathan G. Sterrett

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This **Office Action** is responsive to applicant's amendment filed September 27, 2005. Currently **Claims 1-33** are pending.

Response to Arguments

2. Applicant's arguments filed on September 27, 2005 have been fully considered but are moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **McGrath**.

McGrath, Michael, "Setting the PACE in Product Development: A Guide to Product and Cycle Time Excellence", 1996, Butterworth-Heinemann (Elsevier), Boston, pp.1-184

Regarding **Claim 1**, McGrath teaches:

calculating a number of working hours available for performance of the multiple projects;

page 135 paragraph 3, pipeline management, as taught by McGrath, identifies the need to balance resource requirements for projects with the available resources for those projects. Here McGrath identifies the resultant issue of inability to staff projects as planned, implying that, for the project pipeline as a whole, the amount of resources (i.e. working hours available) is calculated to determine what project resource demand is (demand being for resources).

Page 138 paragraph 1, an aggregate project profile is a calculation of the resource demand that is compared to the functional loading profiles (i.e. the aggregate number of working hours available for the performance of multiple projects).

estimating the time required for completion of each project;

Page 137 paragraph 5, the aggregate project schedule contains the time required for completion of each project, not only in terms of time requirements for resources but also in scheduling –see also page 81 paragraph 3.

based on said time estimates, allocating a first amount of time for performance of said mandatory projects, allocating a second amount of time for performance of said ad hoc projects; and allocating a third amount of time to be held in reserve, wherein the sum of the first, second, and third amounts of time is less than or equal to said available hours;

Page 140 paragraphs 4 & 5, McGrath teaches allocating time for performance of projects between hard and soft commitments. This would include mandatory projects (i.e. hard commitments) and ad hoc projects and reserve as being allocated to soft commitments. See also Figure 9-2 for an illustration of projects mapped between hard and soft commitments for a company with historical and forecast data. Time allocated to soft commitments includes both time in reserve and on ad hoc projects.

assigning tasks associated with the projects for performance;

Page 78 paragraph 5, an integral part of McGrath's PACE methodology is assigning tasks associated with the projects for performance. See also Figure 5-2 on page 75.

periodically inputting an actual time spent in performing the projects and a current status of each project;

page 138 paragraph 1, pipeline management requires keeping track of resource demands versus requirements. McGrath's aggregate pipeline loading profile ensures that actual time spent on performing projects is measured against the available resources so bottlenecks do not occur.

based on the actual time spent and current status for each project, re-estimating the time required for completing each project;

Page 82 paragraphs 1 and 2; project schedules are estimated based on the cycle times for the step guidelines. These step guidelines are updated to reflect past history in estimation.

Page 80 paragraph 3, new methods being incorporated into the step guidelines as they are refined over time includes updating the amount of time required in the step guideline – see also page 82 paragraph 5.

Page 81 paragraph 2, projects typically have re-estimation applied to the project schedule based on the time and current status. McGrath teaches that the cause for this is the fact that many details regarding product development in companies is undetermined.

**for each project type, determining if there exists a time imbalance between the allocated time for completion and the re-estimated time for completion; and
if there exists a time imbalance, reallocating the first, second, and third amounts of time to eliminate the time imbalance.**

Page 141 paragraph 2, Having a locked-in end date for a project means that the end date cannot slip. When a problem in the project occurs, McGrath teaches the redeployment of resources to projects not having flexibility in end dates. This supports the pipeline management idea of redeploying resources from soft commitments (including the first, second and third amounts of time) to hard commitments. See page 39 for the resource allocation or reallocation of projects passing a phase review.

McGrath does not teach:

using a processing system for managing the planning and performance of multiple projects, the processing system performing the above steps:

However Official Notice is taken that it is old and well known in the art to automate steps as taught by McGrath on a computer for the purpose of making the execution of the steps faster and more efficient.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of McGrath, regarding elements of pipeline management, to include the step of automating the elements of pipeline management using a processing system, because it would make the execution of the pipeline management faster and more efficient.

Regarding **Claim 2**, McGrath teaches:

wherein each project comprises one or more identified tasks,

Page 75 paragraph 3 and Figure 5-2. PACE includes planning projects down at least to the task level. A typical project under PACE includes 200-500 tasks.

the estimating step including estimating the time required for completion of each of said identified tasks

Page 80 paragraph 5 step guidelines provided detailed task descriptions which include estimating the time required for completion of the tasks.

McGrath does not teach:

and storing the estimates for each task in a database.

Official Notice is taken that it is old and well known in the art to store estimates for project management tasks in a database. This provides a way for the reuse of project estimates so that subsequent development efforts can utilize and improve prior estimation activity (see page 80 paragraph 2 and page 82 paragraph 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of McGrath, regarding providing cycle time estimates for project tasks, to include the step of storing the estimates for each task in a database, because it would allow subsequent project teams to reuse and improve the task estimates in subsequent project planning efforts.

Regarding **Claim 3**, McGrath teaches:

wherein the estimating step is based on previously performed tasks of a similar nature.

Page 82 paragraph 1, estimation for new project tasks is based on mechanical design cycle times for low, medium and high complexity projects (i.e. previously performed tasks of a similar nature).

Regarding **Claim 4**, McGrath teaches:

logging positive and negative time imbalances for future estimates.

Page 82 paragraph 1, capturing cycle time guidelines over time to improve estimation includes logging positive and negative time imbalances for future estimates.

In this example, the mechanical cycle design times are captured (i.e. logged) to improve future estimates for planning.

Regarding **Claim 5**, McGrath teaches:

wherein the assigning step includes assigning to a worker tasks associated with mandatory projects and tasks associated with ad hoc projects.

Page 81 paragraph 6, individual core team members (i.e. workers) are assigned tasks for the core team they are working on, including for mandatory and ad hoc projects.

Regarding **Claim 6**, McGrath teaches:

wherein the calculating step includes determining a total supply of work hours and subtracting an estimated number of hours for non production activities.

Page 81 paragraph 4, McGrath teaches taking into account a workers total time by subtracting non-production activities the worker has to do (i.e. vacation and other activities) to determine the worker's total time available for projects.

Regarding **Claim 7**, McGrath teaches:

wherein a negative time imbalance is eliminated by decreasing the allocation for the time held in reserve.

Page 140 paragraph 4, time held in reserve, i.e. soft commitments, is reduced to eliminate a negative time balance. If projects that represent hard commitments experience a change requiring additional time and or resources, then soft commitments (including time in reserve and ad hoc projects) are set aside and the resources dedicated to those soft commitments is reallocated to eliminate the negative time imbalance.

Regarding **Claim 8**, McGrath teaches:

wherein a positive time imbalance is eliminated by increasing the allocation for the ad hoc projects.

Page 140 paragraph 4, the reverse of what is claimed in claim 7 above is taught as well by McGrath. If time/resource requirements for hard commitments are reduced, then the extra time is buffered into soft commitments (i.e. ad hoc projects and time held in reserve). McGrath teaches the amount of time/resources necessary to be buffered in soft commitments is governed by the maturity of the technology. The more immature the development technology, the more uncertain the estimates for projects are and the more time/resources to be allocated to soft commitments (i.e. ad hoc and reserve) to handle the uncertainty.

Regarding **Claim 9**, McGrath teaches:

wherein a positive time imbalance is eliminated by re-identifying one or more non-mandatory projects as mandatory projects and increasing the allocation for the mandatory projects.

Page 141 paragraph 4, time/resource commitments are allocated between hard and soft commitments, i.e. mandatory projects and non-mandatory projects.

Page 140 paragraph 5, managing the balance between hard and soft projects is the essence of pipeline management (i.e. managing the resource/demand project pipeline includes eliminating a positive time imbalance). Managing this balance includes eliminating imbalances between supply and demand so that pipeline throughput is maximized. This includes re-identifying one or more projects as mandatory projects and increasing the allocation for the mandatory projects (i.e. hard commitments) from the non-mandatory projects (i.e. soft commitments).

Regarding **Claim 10**, McGrath teaches:

wherein a positive time imbalance is eliminated by increasing the allocation for the time held in reserve.

Page 140 paragraphs 4 & 5, pipeline management balances the amount of development capacity (i.e. time held in reserve versus time allocated to projects) between hard and soft commitments. This includes eliminating an excess of capacity (i.e. positive time imbalance) by increasing the development capacity allocation that is being held in reserve.

Regarding **Claim 11**, McGrath teaches:

wherein a positive time imbalance is eliminated by establishing an earlier estimated completion date for one or more projects.

Page 141 paragraph 2, Soft commitments form a buffer for projects that have a fixed completion date. If there are additional issues that arise in these types of projects, then time/resources from soft commitments are reallocated to these projects to prevent the project from being late. The implications of this also include allocating time/resources (i.e. eliminating a positive time imbalance) to establish an earlier estimated completion date, i.e. time/resources are allocated to the project to complete it sooner than originally scheduled.

Regarding **Claim 12**, McGrath teaches:

if there exists any negative time imbalance, reallocating the first, second, and third amounts of time to eliminate any negative time imbalance;

page 140 paragraph 4 & 5, Pipeline management reallocates time/resource commitments between hard and soft commitments (i.e. first, second and third categories discussed above) to eliminate shortfalls in time/resource demand (i.e. negative time balance).

and if there exists any positive time imbalance, performing one or both of: reallocating the first, second, and third amounts of time to eliminate any positive

time imbalance; and re-identifying one or more non mandatory projects as mandatory.

page 140 paragraph 4 & 5, shortfalls or excesses in development capacity (i.e. positive time imbalance) is handled by pipeline management by reallocating development capacity between hard and soft commitments as required, as long as hard commitments are not jeopardized by a company having too many hard commitments (i.e. mandatory projects) – see page 141 paragraph 5.

Claims 13-33 recite limitations similar to those addressed in the rejection of **Claims 1-12** above, and are therefore rejected under the same rationale.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McGrath, Michael, "Moving along the curve", Jan 1999, Electronic Business, v24, n1, p10(1), Dialog 06068794 53537918.

Anonymous, "Getting Wired for Innovation", Jul/Aug 1999, Strategic Direction, v15n7, pp.17-19, Dialog 02553794 273736571.

Ong, Jennifer, "Rapid telecommunication service development", Nov 1997, Telecommunications, Dedham, Vol. 31, Iss. 11, p. 40, 3 pgs., ProQuest ID 23172162.

Business Wire, "Too many projects in the development pipeline hurt successful launch rate for medical devices/equipment companies", Feb 19, 1998, p.1, ProQuest ID 26492063.

Page, Albert; "Chicago Chapter News: Front-Line Product Development – Pipeline Management", April 1996, PDMA Visions Magazine, pp.1-2, www.pdma.org/visions/apr96/chicago.html.

NN8907480, Resource Allocation and resource compression for project management systems, July 1, 1989, IBM Technical Disclosure Bulletin, Vol. 32, Iss. 2, pp.480-87.

US 6678671 by Petrovic discloses a system for linking a resource management system with a project management system.

US 5408663 by Miller discloses a resource allocation method.

US 6101481 by Miller discloses a task management system.

US 5671361 by Brown discloses a priority rule technique for resource constrained project scheduling.

US 5619695 by Arbabi discloses a method and apparatus for scheduling resources.

US 5548506 by Srinivasan discloses a multi project management system.

US 5537524 by Aprile discloses a multidimensional flow model for project management.

US 5406476 by Deziel discloses a method and apparatus for resource constrained scheduling.

Art Unit: 3623

US 5321610 by Breslin discloses a method for project planning.

US 4937743 by Rassman discloses a method and system for scheduling monitoring and dynamically managing resources.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is (571) 272-6881. The examiner can normally be reached on Monday-Friday, 8:00AM - 6:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JGS

11/30/2005


SUSANNA M. DIAZ
PRIMARY EXAMINER
AU 3623